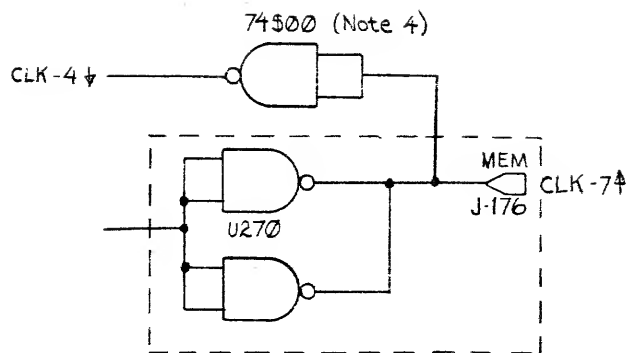


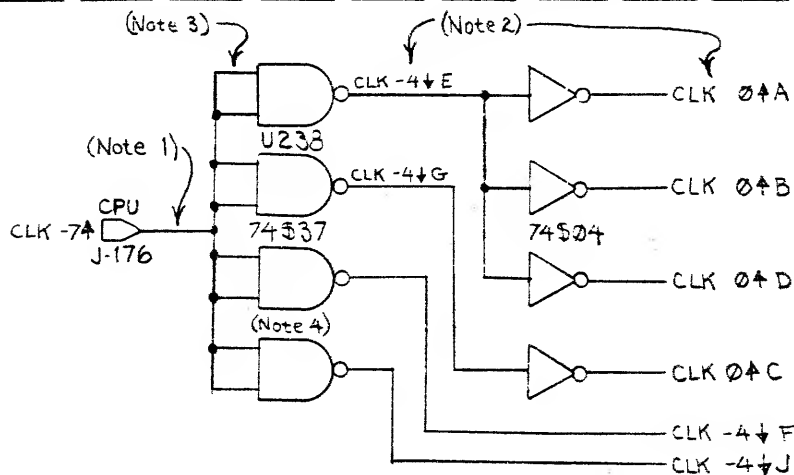
# PERQ I/O BUS ADDRESS ALLOCATION

ADDRESS	READ/WRITE	BOARD ASSIGNMENT	FUNCTION
177			
1			
150			
USER USEABLE ADDRESSES (3RCC WILL NOT USE)			
147	R	MEM Board	Read Parity Error ADR
146			Unused
145	R	MEM Board	CRT Signals
144	W	MEM Board	Load Cursor X Position
143	W	MEM Board	Load Video State
142	W	MEM Board	Load Cursor ADR Counter
141	W	MEM Board	Load Display ADR
140	W	MEM Board	Load Line Cntr
137		I/O Board	MADR Select 1
136		"	"
135		"	"
134		"	"
133		"	"
132		"	"
131		"	"
130		"	"
127		I/O Board	MADR Select 2
126		"	"
125		"	"
124		"	"
123		"	"
122		"	"
121		"	"
120		"	"
117	W	I/O Board	Disk Buffer
116	W	"	"
115	W	"	"
114	W	"	"
113	W	"	"
112	W	"	"
111	W	"	"
110	W	"	"
107	W	I/O Board	PERQ Write Interface (PERQ to Z80)
106	R	I/O Board	PERQ Reads Interface (Z80 to PERQ)
105	W	I/O Board	Net ADR Load
104	W	I/O Board	Net Control
103	R	I/O Board	Net Status
102	W	I/O Board	Disk Head Load
101	W	I/O Board	Disk Seek
100	R	I/O Board	Disk Status
077			
1			
000			
UNUSED (RESERVED FOR 3RCC FUTURE USE)			

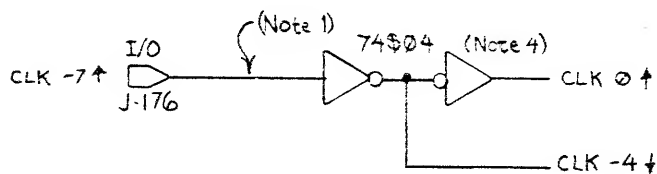
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### MEMORY



### CPU



Note 1: CONNECTIONS TO FINGER 176 (CLK-7) SHOULD BE ABSOLUTELY AS SHORT AS POSSIBLE.

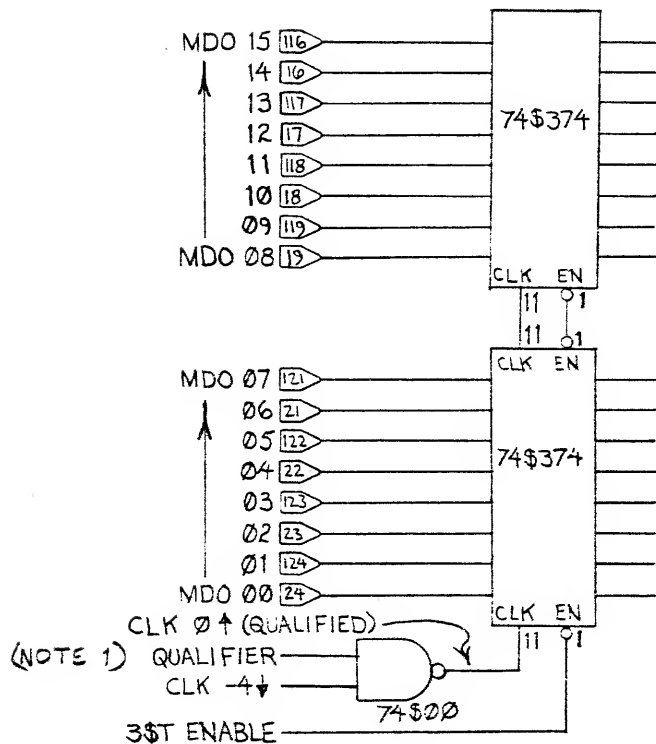
Note 2: FANOUT ON CLK-4 AND CLK 0 SHOULD BE LESS THAN 15 TTL LOADS

Note 3: CLK-7 SHOULD CARRY AS FEW LOADS AS POSSIBLE. (1 LOAD PER BOARD IS DESIREABLE.) THIS MAY BE WAIVED IN ORDER TO OBEY Note 2.

Note 4: GATES RECEIVING CLK-7 OR CLK-4 SHOULD BE SCHOTTKY INVERTING GATES. (74504, 74500 PREFERRED)

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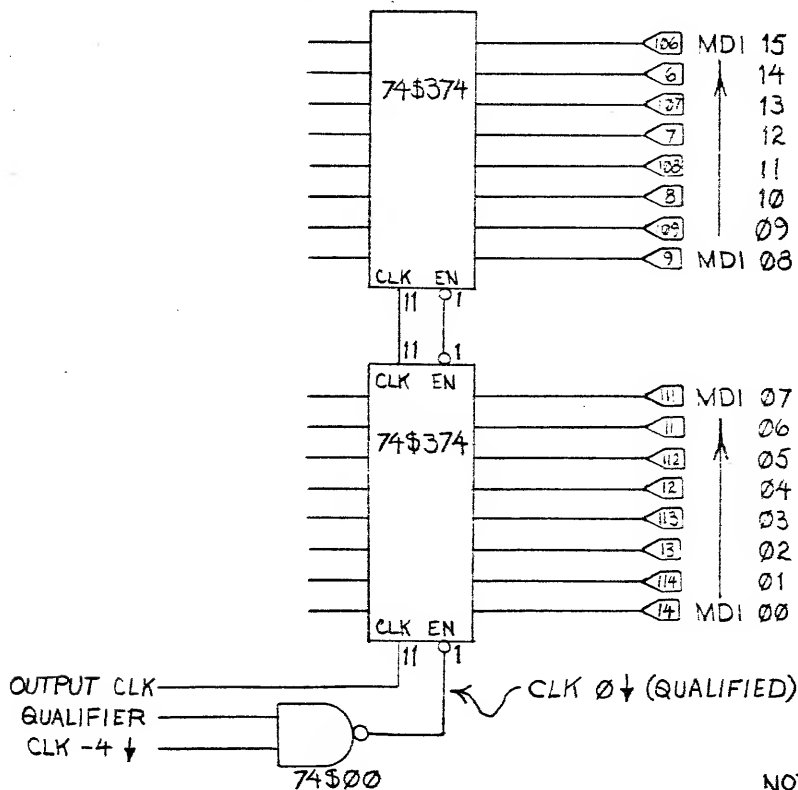
## TYPICAL CIRCUIT for CAPTURING DATA from MEMORY



### NOTES

1. QUALIFIER MAY BE  $\equiv$  TRUE
2. SCHOTTKY PARTS ONLY

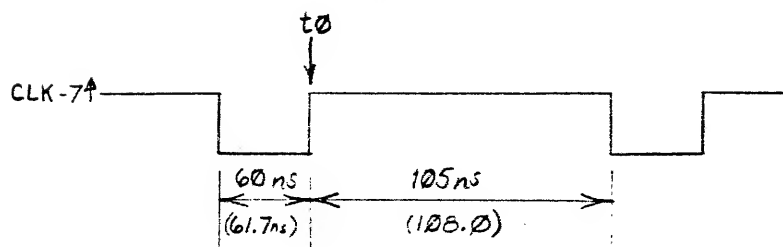
## TYPICAL CIRCUIT for SENDING DATA to MEMORY



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NOTE: SCHOTTKY PARTS ONLY

ACTUAL	FOR TIMING CALCULATIONS
VIDEO CLOCK $f = 64.78824 \text{ MHz}$ $\frac{1}{f} = T = 15.434 \text{ ns}$	15 ns
SYSTEM CLOCK $f = 5.89 \text{ MHz}$ $\frac{1}{f} = T = 169.78 \text{ ns}$	165 ns



NOTES:

1. CLOCK -7 Finger 176 MEMORY
2. USE ROUNDED VALUES for TIMING CALCULATIONS  
(15ns VID CLK; 165ns SYSTEM CLK) THIS ALLOWS  
MARGIN FOR CLOCK JITTER.

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CLK  $\emptyset$   $\uparrow$   
MEM U231-8

CLK -4  $\downarrow$

CLK -7  $\uparrow$   
MEM FINGER 176

P 1  
MEM U255-14 (26)

P  $\emptyset$   
MEM U254-9 (26)

TIME 1'  
MEM U243-6 (26)  
FINGER 174

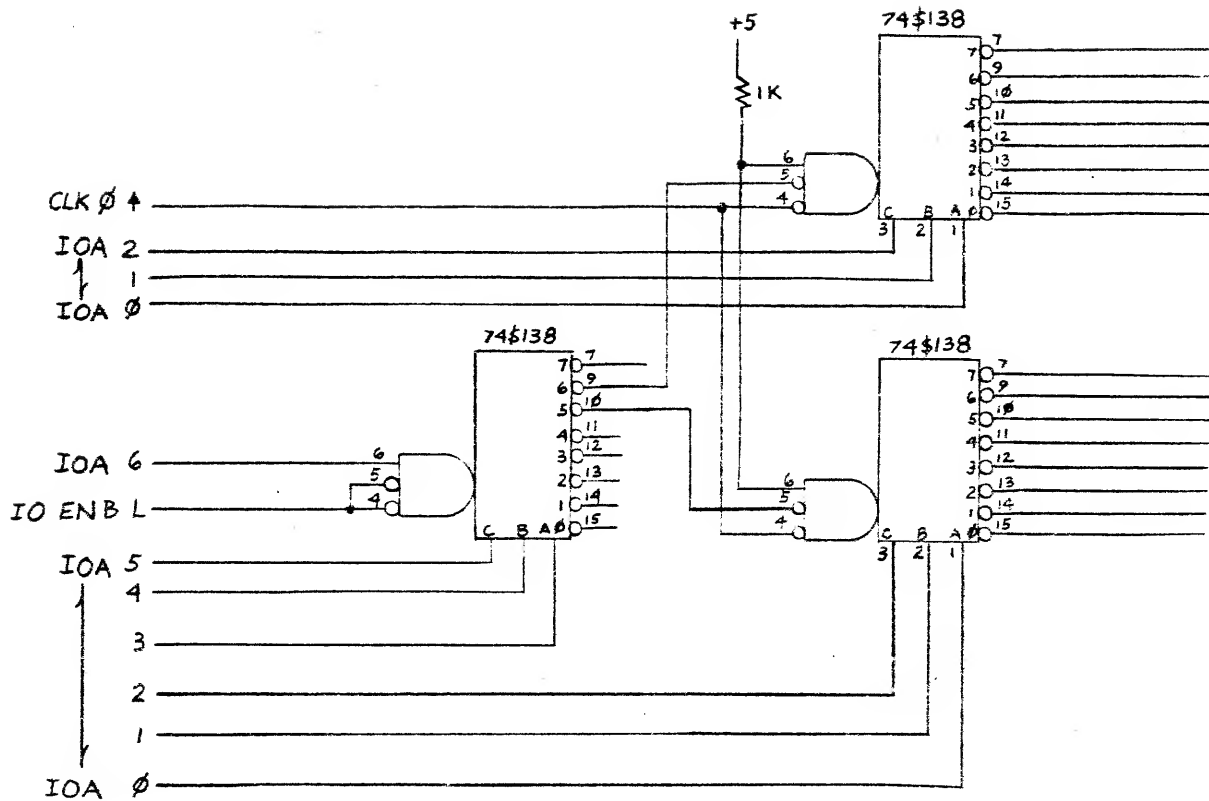
TIME  $\emptyset'$   
MEM U243-8 (26)  
FINGER 173

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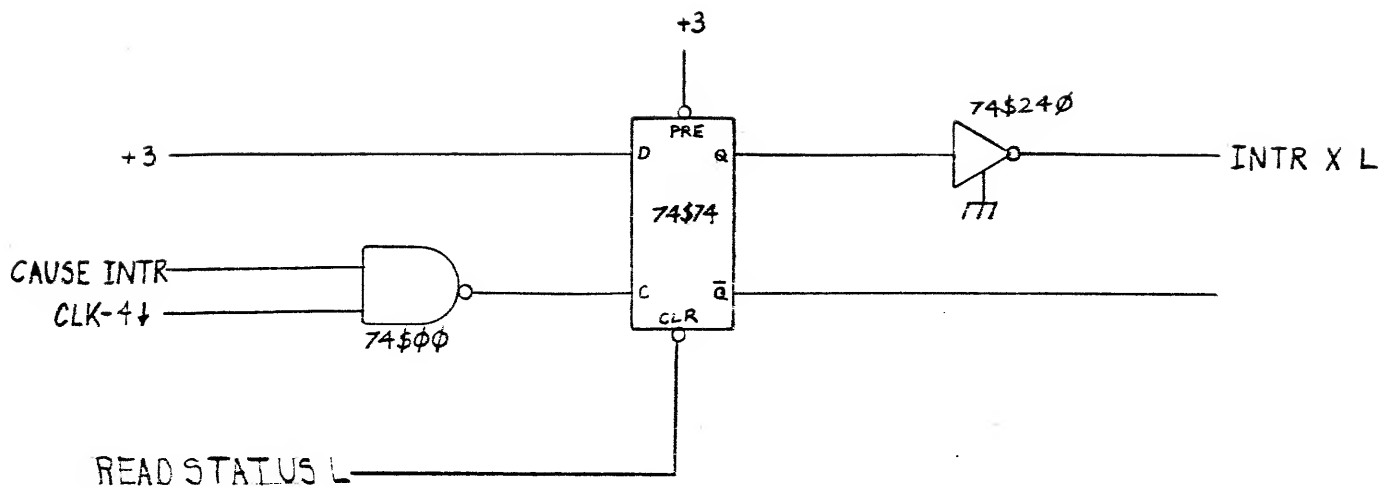


Three Rivers Computer



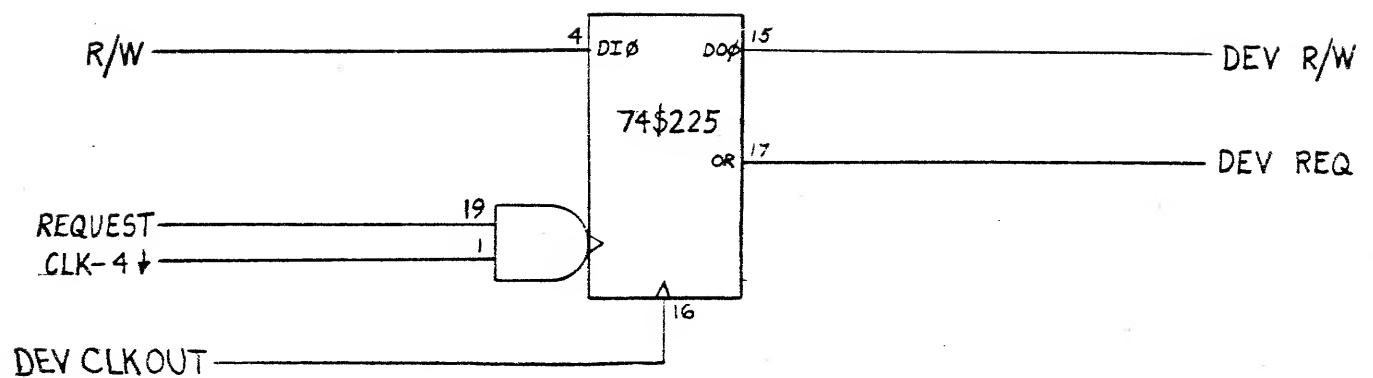


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